

Appendix 4

Application 09/376381



In Application 09/376381, at the very beginning, the problem identified was how to forecast demand in cargo service business. This is eluded in specification at page 2 line 17. The traditional way is to base on past data and to survey existing customers to get a figure. The inventor believed this method of passive management to be in error. And using the fee structure to improve bottom line is one of defensive in the short run. Poor prediction leads to poor use of cargo space which could otherwise be sold off to others by classifying clients in terms of type of cargo and flexibility. The free reservation system currently being employed is also another problem since it leads to agents changing providers to take advantage of the last minute fire sale by desperate cargo providers. The solution initially was for a "booking fee" to address the demand requirement since by imposing such a fee, it is reasonable to predict the real demand by proxy. However, there is no uniformity to such a fee and no precedent at all to calculate such a fee which may or may not be acceptable to buyers, leaving eventually for buyers to name their own fee in a negotiated market. This fee suggestion is not practical, as there were never any fee imposed by any cargo service provider and to start imposing this would be disastrous. So the inventor provided a more palatable solution by modifying it as a hedge instrument in the name of a cargo option instead as a fee and by doing so modifying the formulation to include options requirements. By using cargo options as proxies, it is possible to predict with greater accuracy than the current polling, survey and analysis of past data method found in almost all air cargo systems.

Given that there is no organized 'market' in 1999, this is even worst than having a poorly manipulated fee structure since in those days all deals were done on phone and fax which also leads to more paper work as well as confusion as faxes went forth and back.

No cargo options have ever been produced or traded as the cargo service provider declined the inventor's proposition and opted instead for other traditional forecasting techniques even though it produces more or less the same results. The concept of a cargo option was further extended to determining a price for an option to purchase cargo space where such price is sought from cargo systems in an electronic market exchange environment. More experimentation went into the first programmable formula and later adapted in a system which connects all parties together. Being inexperienced in patent matters, I was not sure whether a modified black scholes formula is acceptable or not since black scholes formula is prior art and formula is not patentable. What I am interested in is an network apparatus that can provide an option price for cargo space and to administrate its buying and selling between registered users and service providers. That is what I invented, claimed and wish to patent.

The real implication is further and more useful such as for inter-planet cargo transportation due to its huge cost. For example, it cost US 27 million dollars in 2000 to bring a human being (a type of cargo) to space for 5 days. This is where the real use of cargo option is useful for.